Bulletin of the
BRITISH ORNITHOLOGISTS' CLUB

Vol. 97 No. 4 Published: 20 December 1977

The seven hundred and eighth meeting of the Club was held at the Senior Common Room, South Side, Imperial College, London, S.W.7 at 6.45 p.m. on Thursday, 15 September 1977.

Chairman: Dr. G. Beven, M.D.; present 14 members and 12 guests.

Professor V. C. Wynne-Edwards, C.B.E., F.R.S., F.R.S.E. gave an address of outstanding interest on 'Social competition controlling population density in birds'.

Professor Wynne-Edwards first discussed the factors suggested by Darwin as being responsible for limiting animal numbers, namely predation, disease, climate and food supply, giving examples of circumstances in which they were clearly effective. These factors did not alone, however, account sufficiently for the remarkably constant sizes of populations of some animals.

He next considered the function of territorial systems in preventing the carrying capacity of a habitat being exceeded. Examples of this included beavers (*Castor* spp.), with the need to prevent destruction of their habitat by excessive timber felling; and Red Deer (*Cervus elaphus*), where a social hierarchy gave the best feeding territories to hinds in calf. He then dealt at some length with Red Grouse (*Lagopus lagopus*), pointing out that population size was not governed by predation or disease. With this bird, size of territory was correlated with the quantity and quality of its main food, namely heathers (*Calluna vulgaris* and *Erica* spp.) and with success in obtaining a territory. Territorial success was related to hormonal condition, with competition for territories largely governed by strong social conventions.

In conclusion Professor Wynne-Edwards emphasized that animals which limit their numbers do so for the common good. He explained that he no longer supported the concept of group selection since clearly genes leading to lowered fertility would be selected against and eliminated. Nevertheless, he considered epideictic displays (i.e. communal manoeuvres, especially at dusk and dawn) were of vital importance as part of the system of control of populations by social mechanisms.

The address gave rise to a highly stimulating discussion.

The Seven hundred and ninth meeting of the Club was held at the Senior Common Room, South Side, Imperial College, London, S.W.7 at 7 p.m. on Tuesday, 15 November 1977.

Chairman: Mr. P. Hogg; present 24 members and 17 guests.

Mrs. Stephanie Tyler, Ph.D., spoke on the "Avifauna of Ethiopia", illustrating her talk with slides of the birds and habitats. She provided much recent information on the distribution of birds there and included observations made during the period she was held captive in 1976 and 1977, largely in montane country.

Weights of Some Puerto Rican Birds

by Storrs L. Olson and J. Phillip Angle

Received 17 May 1977

For a number of biological and evolutionary studies it has become increasingly important to know the weights of various taxa of birds. Few figures are available for species in the West Indies, where it is important to have data from many localities because of the number of species endemic to single islands and because the races of polytypic species can differ greatly in size from island to island (e.g. *Spindalis*). Apart from certain studies of individual species, the only figures for the weights of Puerto Rican birds appear to be those for 20 species given by Oniki (1975).

From 14 to 30 April 1977 we collected 279 specimens of 47 species of birds in Puerto Rico, mainly for preparation as skeletons to provide comparative material for identifying a large series of Pleistocene fossils obtained previously on the island. Each of these was weighed while fresh on an Ohaus

triple-beam balance. We were able also to determine the sex of all specimens except a few of sexually non-dimorphic species that were preserved whole in formalin. Most of our specimens were collected in one of four localities: dry scrub in Guánica Forest Reserve (where, due to drought, few species were breeding); montane forest in Maricao Forest Reserve; coffee plantations near Utuado; and pastureland around Laguna Cartagena.

Since our sample sizes were usually small, we have simply listed the weight of each individual to the nearest 0·1 gm.

Falco sparverius caribaearum: ♂ 87·8
Rallus longirostris caribaeus: ♀ 247·9
Charadrius w. wilsonia: ♀ 61·2
Columba squamosa: ♂ 326·2
Zenaida m. macroura: ♀ 108·0
Columbina passerina portoricensis: ♂ 32·8, 33·4, 35·3, 39·9; ♀ 30·1, 35·4, 35·8, 37·7, 38·5.
Geotrygon m. montana: ♂ 126·2, 140·0; ♀ 116·1, 117·2, 122·9, 126·0, 141·4
Saurothera vieilloti: ♂ 73·55, 74·5, 83·4; ♀ 87·9, 96·9
Crotophaga ani: ♀ 82·0
Otus n. nudipes: ♂ 118·0, 132·35, 142·7; ♀ 102·9, 154·0
Caprimulgus noctitherus: ♂ 34·95, 35·5, 36·6
Chlorostilbon maugaeus: ♂ 2·85, 2·95, 3·1, 3·1, 3·1, 3·55 (fat); ♀ 2·8, 2·8, 2·85, 2·9, 2·9, 3·0, 3·05, 3·2
Anthracothorax dominicus aurulentus: ♂ 5·4, 5·5, 5·9, 6·0, 6·0, 6·1, 6·2, 6·3; ♀ 5·2, 5·3
Anthracothorax viridis: ♂ 6·7, 6·9, 6·95, 7·1; ♀ 6·5
Todus mexicanus: ♂ 5·3, 5·4, 5·5, 5·6, 5·8, 5·9, 5·9, 5·95, 6·4, 6·7; ♀ 5·4, 5·65; sex ? 5·2, 5·8, 6·0
Melanerpes portoricensis: ♂ 53·9, 56·6, 58·5, 65·8, 67·1; ♀ 45·7, 49·1, 49·9, 52·6, 55·1, 58·0, 59·4
Tyrannus d. dominicensis: ♂ 47·1
Myiarchus stolidus antillarum: ♂ 22·8, 23·3, 23·3, 23·8, 25·3; ♀ 22·0, 22·6, 22·9, 23·3, 24·1
Contopus latirostris blancoi: ♂ 11·0, 11·4, 11·5, 11·7; ♀ 9·25, 9·7, 9·8, 10·0, 10·0
Elaenia martinica riisii: ♂ 19·1, 19·15; ♀ 18·3
Hirundo f. fulva: ♂ 15·2, 15·3, 16·0, 16·0, 16·1, 16·2, 17·3; ♀ 15·25, 15·8, 16·2, 16·8, 16·85
Mimus polyglottos orpheus: 49·7; ♀ 60·7
Margarops f. fuscatus: ♂ 89·7, 89·9, 91·6, 92·3, 106·7; ♀ 88·35, 96·2
Turdus plumbeus ardosiaceus: ♂ 70·9, 72·7, 82·95, 83·35; ♀ 60·1, 64·4, 66·2, 67·9
Vireo latimeri: ♂ 10·6, 10·95, 11·4, 11·4, 12·5; ♀ 10·2, 10·3, 10·4, 11·1, 11·35, 12·1; sex ? 10·7, 11·25, 12·4, 12·5
Vireo a. altiloquus: ♂ 20·0, 20·8; ♀ 20·35, 22·1
Mniotilta varia: ♀ 10·0
Parula americana: ♂ 7·5; ♀ 7·0, 6·5
Dendroica petechia cruciana: ♂ 11·7, 13·1; ♀ 10·4, 10·5, 10·8, 11·4
Dendroica tigrina: ♀ 10·2
Dendroica caerulescens: ♂ 10·0 (no fat visible), 13·0 (heavy fat)
Dendroica a. adelaidae: ♂ 6·8, 7·1, 7·2, 7·3, 8·1; ♀ 6·2, 6·35, 6·6, 6·75, 6·8
Seiurus aurocapillus: ♀ 18·85 (heavy fat)
Geothlypis t. trichas: ♂ 9·4, 10·35
Geothlypis trichas ignota: ♂ 11·6
Setophaga ruticilla: ♀ 6·5
Coereba flaveola portoricensis: ♂ 9·0, 9·1, 9·2, 9·8; ♀ 8·2, 9·3, 9·35
Euphonia musica sclateri: ♂ 12·4, 12·5, 13·1, 13·8; ♀ 13·35, 14·35
Spindalis zena portoricensis : ♂ 29·2, 30·6, 33·2; ♀ 32·4
Nesospingus speculiferus: ♂ 32·6, 35·65, 36·4, 36·5, 37·25, 37·4, 37·7, 38·1; ♀ 31·0, 31·7, 37·0, 37·2, 37·95, 39·7; sex ? 32·5, 35·6, 35·8, 36·55
Quiscalus niger brachypterus: ♂ 80·9, 85·8, 86·4, 89·5, 93·1; ♀ 61·9, 62·2, 66·2, 66·4, 67·2
Icterus dominicensis portoricensis: ♂ 41·5, 42·1, 42·15, 44·9
Icterus icterus ridgwayi: ♂ 75·3; ♀ 67·5
Agelaius x. xanthomus: ♂ 39·1, 41·4
Tiaris olivacea bryanti: ♂ 8·0, 8·75, ♀ 8·2;

Tiaris bicolor omissa: ♂ 9·3, 9·6, 9·9, 10·0; ♀ 9·1, 9·5, 9·8, 10·4
Loxigilla p. portoricensis: ♂ 31·1, 32·0, 32·8, 34·4, 34·7, 34·7, 34·8, 34·9, 35·1, 35·8, 38·0, 39·1; ♀ 23·4, 26·0, 26·5, 27·8, 29·4, 31·5, 32·6, 36·7; sex ? 27·3, 29·5, 31·3, 34·6
Estrilda amandava: ♂ 8·6

Acknowledgements: This study was supported by a grant from the National Geographic Society and was greatly facilitated through the cooperation of the Department of Natural Resources of the Commonwealth of Puerto Rico, in which connection the aid of Mr. Herbert Raffaele was of particular importance. We thank George A. Clark for comments on the manuscript.

Reference:

Oniki, Y. 1975. Temperatures of some Puerto Rican birds with note of low temperatures in todies. *Condor* 77: 344.

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Review of the records of three Palaearctic ducks in Southern Africa

by A. Clark

Received 26 May 1977

Moreau (1972) lists eleven species of Palaearctic duck which can be found wintering in East Africa. Of these the Garganey *Anas querquedula* is the most common, while the only other species consistently wintering south of the Sahara in large numbers is the Northern Pintail *Anas acuta*. The wintering distribution of the European Shoveler *Anas clypeata* is similar to that of the Northern Pintail but the numbers are less. These three species occasionally penetrate south of latitude 10°S.

As certain authors have been unable to accept the occurrence of the European Shoveler in the Cape Province as that of a genuine migrant (Benson & Grimwood 1959, Winterbottom & Middlemiss 1960) it was felt that the position could be clarified by bringing together and reviewing all records for Zambia, Malawi, Botswana, Rhodesia, Mozambique, South West Africa (S.W.A.) and the Republic of South Africa (R.S.A.) of the three species mentioned above.

Garganey *Anas querquedula*

The Garganey records are given in Table 1, but excluded are an old record from Mbara, Zambia (about year 1900) and other records of specimens collected in December, January and February (year not stated) at Itawa swamp, Ndola which were originally misidentified by Schauensee as *Anas capensis* (Benson *et al.* 1970).

Zambia. Fairly regular since 1972. During the February and March 1974 rains 100 or more were counted at Lochinvar on three occasions.

Malawi. First recorded in 1934 (the record at Loudon was between 1932 and 1938) and then at intervals until 1948, but not again until 1973. Flocks of *c* 40 birds were seen in 1942 and 1944.

Rhodesia. Records include a flight of 150–200 birds, believed to be Garganey, near Salisbury in December 1945 (Kennedy 1947). Similar numbers were not seen in Zambia at this time. Woodall (1975) showed there was a correlation between the presence of Garganey in Rhodesia and low rainfall in the Sahel region, south of the Sahara.